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10/538,350	06/10/2005	Uwe Hildebrand	4114-17	1940

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EXAMINER
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KHAN, MEHMOOD B

ART UNIT	PAPER NUMBER
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2617

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/538,350	Applicant(s) HILDEBRAND ET AL.	
	Examiner Mehmood B. Khan	Art Unit 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/10/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 19, 7 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 1 contains the abbreviation "(TG)" as referring to the limitations "first communications resources" in line 6 on page 4 and to "one transmission gap" in line 20 on page 4.
4. Claim 19 contains the abbreviation "(TG)" as referring to the limitations "first communications resources" in line 10 on page 11 and to "one transmission gap" in line 18 on page 11. This renders the claims unclear and indefinite, since the abbreviation "(TG)" referring to more than one limitation.
4. Claim 7 recites the limitation "the second frequency range" in line 10 on page 6 and claim 25 recited the limitation "the second frequency range" in line 17 on page 13. There is insufficient antecedent basis for this limitation in the claims.

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 38 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

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Claim 38 defines a computer program product comprising computer code embodying functional descriptive material and computer code. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized").

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ketseoglou et al. (US 5,732,076 herein Ketseoglou) in view of Rakib et al. (US 5,793,759 herein Rakib).

Claim 1, Ketseoglou discloses a method for operating a first communications environment for which first communications resources (TG) are provided for communications according to a first communications standard type (Col 3: 23-28, where Ketseoglou discloses a first protocol, i.e. a first communications environment using a first protocol), Ketseoglou discloses using the first communication resources for communications according to the first communications standard type, using the first communications resources for communications according to a second communications standard type (Col 3: 35-37, where Ketseoglou discloses a first and second protocol, It is well known ton one of ordinary skill in the art

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that cellular communications are enabled over resources, i.e. spectrum / time frames with time slots), Ketseoglou discloses controlling the use of the first communications resources as being used for communications according to the first communications standard type in dependence of communications to be performed according to the second communications standard type (Col 22: 52-62, where Ketseoglou discloses using time slots based on a greater number of users of a protocol), communicating according to the first communications standard type by using a first frame structure including at least one transmission gap (TG) (It is well known to one of ordinary skill in the art that a TDMA protocol and a spread spectrum protocol use different frame structures and guard time is used in a TDMA protocol), Ketseoglou discloses controlling the use of the first communication resources by controlling at least one of a number and duration of the at least one transmission gap (TG) (Col 24: 41-46, where Ketseoglou discloses inserting time gaps between slots of both protocols).

Ketseoglou does not disclose using the at least one transmission gap (TG) for communications according to the second communications standard type.

In an analogous art, Rakib disclose using the at least one transmission gap (TG) for communications according to the second communications standard type (Col 4: 49-51, where Rakib discloses transmission of timing signals for frame alignment in gaps between frames). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ketseoglou with the teachings of Rakib so as to reduce crosstalk (Col 4: 45-46).

Claim 2, Ketseoglou discloses controlling the use of the first communications resources (TG) for communications according to the first communications standard type in dependence

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of communications to be performed according to the first communications standard type (Col 22: 52-62, where Ketseoglou discloses using time slots based on a greater number of users of a protocol).

Claim 3, Ketseoglou discloses using second communications resources provided for communications according to the second communications standard type for communications according to the first communications standard type and controlling the use of the second communications resources for communications according to the second communications standard type in dependence of communications to be performed according to the first communications standard type (Col 22: 52-62, where Ketseoglou discloses using time slots assigned to a protocol to be used by a different protocol depending on the number of users).

Claim 4, Ketseoglou discloses communicating according to the second communications standard type by using a second frame structure (Fig. 15: 926a and 926b, where Ketseoglou discloses different frames from different protocols creating a composite frame), Ketseoglou discloses controlling the use of the second communications resource by controlling at least one of a number and a duration of at least a part of the second frame structure being used for communications according to the second communications standard type (Col 31: 56-60, where Ketseoglou discloses providing time slots for the use by the other protocol).

Claim 5, Ketseoglou discloses controlling the use of the second communications resources for communications according to the second communications standard type in dependence of communications to be performed according to the second communications

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standard type (Col 22: 33-43, Fig. 15: 926a and 926b, where Ketseoglou discloses time slots with respect to both communication protocols).

Claim 6, Ketseoglou discloses wherein the first communications resources include a first frequency range (Col 28: 19-22, Fig. 21: 985, where Ketseoglou discloses Group A frequencies).

Claim 7, Ketseoglou discloses wherein the first frequency range and the second frequency range overlap at least partially (Col 28: 23-28, where Ketseoglou discloses overlap).

Claim 8, Ketseoglou discloses controlling the use of the first communications resources for a geographical area for which both communications according to the first communications standard type and communications according to the second communications standard type are provided (Col 3: 23-29, where Ketseoglou discloses operation in the same or overlapping geographic region).

Claim 9, Ketseoglou discloses available communications resources for communications according to the second communications standard type (Col 22: 52-62, where Ketseoglou discloses using time slots based on a greater number of users of a protocol, Col 31: 56-60, where Ketseoglou discloses providing time slots for the use by the other protocol).

Claim 10, Ketseoglou discloses available communications resources for communications according to the first communications standard type (Col 22: 52-62, where

**Ketseoglou discloses using time slots based on a greater number of users of a protocol, Col 31: 56-60, where Ketseoglou discloses providing time slots for the use by the other protocol).**

Claim 11, Ketseoglou discloses providing the first communications resources as resources comprised by the first communications environment, which provides for communications according to the first communications standard type (Fig. 15: 926a and 926b, where Ketseoglou discloses time slots used for both types of protocols).

Claim 12, Ketseoglou discloses providing the first communications resources as resources comprised by the first communications environment, which provides for communications according to the first communications standard type (Fig. 15: 926a and 926b, where Ketseoglou discloses time slots used for both types of protocols), Ketseoglou discloses providing the second communications resources as resources comprised by a second communications environment, which provides for communications according to the second communications standard type (Col 3: 23-28, where Ketseoglou discloses a second protocol, i.e. a second communications environment using a second protocol).

Claim 13, Ketseoglou discloses communicating information indicating available communications resources for communications according to the second communications standard type to the first communications resources so as to control the use of the first communications resources (Col 22: 52-62, where Ketseoglou discloses using time slots based on a greater number of users of a protocol, Col 31: 56-60, where Ketseoglou discloses providing time slots for the use by the other protocol).



Claim 14, Ketseoglou discloses communicating information indicating available communications resources for communications according to the first communications standard type to the second communications resources so as to control the use of the second communications resources (Col 22: 52-62, where Ketseoglou discloses using time slots based on a greater number of users of a protocol, Col 31: 56-60, where Ketseoglou discloses providing time slots for the use by the other protocol).

Claim 15, Ketseoglou discloses using the first communications resources for only communications according to the first communications standard type, or only communications according to the second communications standard type, or communications according to the first communications standard type and communications according to the second communications standard type (Col 22: 52-62, where Ketseoglou discloses using time slots based on a greater number of users of a protocol, Col 31: 56-60, where Ketseoglou discloses providing time slots for the use by the other protocol).

Claim 16, Ketseoglou discloses using the second communications resources for only communications according to the first communications standard type, or only communications according to the second communications standard type, or communications according to the first communications standard type and communications according to the second communications standard type (Col 22: 52-62, where Ketseoglou discloses using time slots based on a greater number of users of a protocol, Col 31: 56-60, where Ketseoglou discloses providing time slots for the use by the other protocol).

Claim 17, Ketseoglou discloses controlling the use of the first communications resources such that communications according to the first communications standard type are prioritized in relation to communications according to the second communications standard type (Col 32: 30-34, where Ketseoglou discloses prioritization).

Claim 18, Ketseoglou discloses controlling the use of the second communications resources such that communications according to the second communications standard type are prioritized in relation to communications according to the first communications standard type (Col 32: 30-34, where Ketseoglou discloses prioritization).

Claim 19, Ketseoglou discloses a communications environment, being adapted to utilize first communications resources (TG) for communications according to a first communications standard type for communications according to a second communications standard type (Col 3: 35-37, where Ketseoglou discloses a first and second protocol, It is well known to one of ordinary skill in the art that cellular communications are enabled over resources, i.e. spectrum / time frames with time slots), Ketseoglou discloses to control the use of the first communications resources (TG) for communications according to the first communications standard type in dependence of communications to be performed according to the second communications standard type (Col 22: 52-62, where Ketseoglou discloses using time slots based on a greater number of users of a protocol), Ketseoglou discloses wherein the first communications resources comprise a first frame structure including at least one transmission gap (TG) (It is well known to one of ordinary skill in the art that a TDMA protocol and a spread spectrum protocol use different frame structures and guard time is used in a TDMA and TDD protocol), Ketseoglou discloses wherein the

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communications environment is adapted to control the use of the first communications resources by controlling at least one of a number and duration of the at least one transmission gap (TG) (Col 24: 41-46, where Ketseoglou discloses inserting time gaps between slots of both protocols).

Ketseoglou does not disclose wherein the communications environment is adapted to control the use of the at least one transmission gap (TG) for communications according to the second communications standard type.

In an analogous art, Rakib discloses control the use of the at least one transmission gap (TG) for communications according to the second communications standard type (Col 4: 49-51, where Rakib discloses transmission of timing signals for frame alignment in gaps between frames). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ketseoglou with the teachings of Rakib so as to reduce crosstalk (Col 4: 45-46).

Claim 20, as analyzed with respect to the limitations as discussed in claim 2.

Claim 21, as analyzed with respect to the limitations as discussed in claim 3.

Claim 22, as analyzed with respect to the limitations as discussed in claim 4.

Claim 23, as analyzed with respect to the limitations as discussed in claim 5.

Claim 24, as analyzed with respect to the limitations as discussed in claim 6.

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Claim 25, as analyzed with respect to the limitations as discussed in claim 7.

Claim 26, as analyzed with respect to the limitations as discussed in claim 8.

Claim 27, as analyzed with respect to the limitations as discussed in claim 9.

Claim 28, as analyzed with respect to the limitations as discussed in claim 10.

Claim 29, as analyzed with respect to the limitations as discussed in claim 11.

Claim 30, as analyzed with respect to the limitations as discussed in claim 12.

Claim 31, as analyzed with respect to the limitations as discussed in claim 13.

Claim 32, as analyzed with respect to the limitations as discussed in claim 14.

Claim 33, as analyzed with respect to the limitations as discussed in claim 15.

Claim 34, as analyzed with respect to the limitations as discussed in claim 16.

Claim 35, as analyzed with respect to the limitations as discussed in claim 17.

Claim 36, as analyzed with respect to the limitations as discussed in claim 18.

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Claim 37, Ketseoglou discloses a radio base station for a communications environment being adapted to be operated according to the steps of claim 1 (Fig. 13, where Ketseoglou discloses an integrated base station).

Claim 38, Ketseoglou discloses a computer program product, comprising program code portions for carrying out the steps according to claim 1 (Col 21: 14-22, where Ketseoglou discloses processors, it is well known to one of ordinary skill in the art that processors perform instructions based on computer program code).

Claim 39, Ketseoglou discloses being stored on a computer readable storage medium or in a computer readable storage device (Col 21: 14-22, where Ketseoglou discloses processors, Col 25: 22-29, where Ketseoglou discloses programming of time slots, it is well known to one of ordinary skill in the art that a processor is a computer readable storage device).

Claim 40, Ketseoglou discloses wherein the second communications resources include a second frequency range (Col 28: 23-28, Fig. 21: 981).

Claim 41, as analyzed with respect to the limitations as discussed in claim 8.

Claim 42, as analyzed with respect to the limitations as discussed in claim 10.

Claim 43, as analyzed with respect to the limitations as discussed in claim 10.

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Claim 44, Ketseoglou discloses providing the first communications resources and second communications resources as resources comprised by the first communications environment, which provides for both communications according to the first communications standard type and communications according to the second communications standard type (Col 22: 52-62, where Ketseoglou discloses using time slots based on a greater number of users of a protocol, Col 31: 56-60, wher

e Ketseoglou discloses providing time slots for the use by the other protocol).

Claim 45, as analyzed with respect to the limitations as discussed in claim 40.

Claim 46, as analyzed with respect to the limitations as discussed in claim 10.

Claim 47, as analyzed with respect to the limitations as discussed in claim 10.

Claim 48, as analyzed with respect to the limitations as discussed in claim 44.

Claim 49, as analyzed with respect to the limitations as discussed in claim 8.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehmood B. Khan whose telephone number is 571-272-9277. The examiner can normally be reached on Monday - Friday 8:30 am - 5:00 pm.

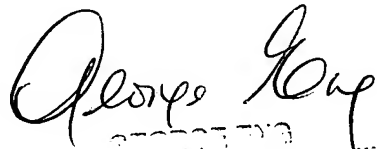
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MBK

Mehmood B. Khan  
Examiner  
Art Unit 2617



George Eng  
SUPERVISOR